Important Instructions:

- At the end of assignment, you will able to write code using functional interface and lambda expression.
- Your code will be graded both on correctness and efficiency.
- Use comments in your code that explains your assumptions and design decisions.
- You need to submit your assignment solution by end of the day.
- Before submitting your assignment makes sure it as per the given requirement.
- You need to submit your assignment on mercury on the respective folder.
- Your folder name will be your employeeId_Day_Assignment. **(E.G 105678_Day1_Assignment).**

Q1 Write a java program as per the below given specification:

i) Declare an interface **Addressable** having following methods **String getState()**; , **String getCity();** and default String getFullAddress(){}.

ii) Declare a class Employee which implements Addressable interface declare properties namely **city** and **state**(type String) , declare a constructor to initialize the properties and override the **getState()** and **getCity()** method which returns city and state of Employee.

iii) Declare a class EmployeeAddress having main() method create the object of Employee class and display Employee full address using getFullAddress() default method of Addressable interface.

Q2. Create a java application to display all files in current directory with (.java) using lambda expression and using anonymous class .

Q3. Write a java program as per the below given specification:

i) Declare a functional interface **MyInterface** having a method **myTest()**.

ii) Declare a class **MyInterfaceImpl** which implements the MyInterface provide the implementation of **myTest()** method

iii) Declare a class **MainApp** containing the **main()** method call the myTest() method of MyInterface using anonymous class and lambda expression.

Q4. Write a java program as per the below given specification:

i) Declare a functional interface **IsSalary** having a method **int calulateSalary(int days,int salPerDay)**

ii) Declare a class CalculateSalary containing the **main()** method call the **int calulateSalary(int days,int salPerDay)** method of **IsSalary** to calculate and print employee salary using anonymous class and lambda expression.

Q5 Write a java program as per the below given specification:

i) Declare a class **Employee** with properties **eid (type int) ,Name (type String)** declare a constructor to initialize the properties and generate the setter and getter method

ii) Declare a class **PrintEmployeeInfo** containing the main() method inside main method declare a List object **empList** which is type of Employee and store three Employee object. Display Employee information using anonymous object of Consumer interface and lambda expression.

Q6 Write a java program as per the below given specification:

i) Declare a class Employee with properties **eid (type int) ,Name (type String),age (type int)** declare a constructor to initialize the properties and generate the setter and getter method

ii) Declare a class **EmployeePredicateTest** containing the main() method inside main method declare a List object **empList** which is type of Employee and store four Employee object. Declare a static method filter(List<Employee> emp, Predicate<Employee> condition) inside this method display Employee information by testing following Predicate.

a) Display employee information which name contains more than five character.
b) Display employee information which name starts with A.
c) Display employee information whose age is greater than equal to fifty.
d) Display employee information whose age is less than fourty.
e) Display employee information whose age is less than thirty and equals to fifty.